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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,167	01/31/2001	Justin D. Pearlman	13331-101	6098

26486 7590 11/29/2002
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EXAMINER

EVANISKO, GEORGE ROBERT

ART UNIT	PAPER NUMBER
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3762

DATE MAILED: 11/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/773,167

Applicant(s)

PEARLMAN, JUSTIN D.

Examiner

George R Evanisko

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 and 23-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other:

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DETAILED ACTION***Election/Restrictions***

Applicant's election with traverse of the restriction in Paper No. 7 is acknowledged. The traversal is on the ground(s) that "all of the claims of the present invention are directed to the same invention and should be examined together since the processes and apparatus are so closely related together as to justify an examination of all the claims as a single invention", that "the field of search would necessarily be co-extensive" and that no serious burden would be required by the examiner. This is not found persuasive because the field of search is not co-extensive. Group II deals specifically with the heart and is searched in 600/508+ while groups I and III deal with general physiological signals searched in 600/300+. This alone presents a serious burden to the examiner. In addition, as indicated in the restriction, paper number 5, the inventions have been shown to be distinct since the apparatus can be used to practice another and materially different process not involving the heart but for monitoring the lungs or stomach. Finally, the method claims are each directed to different methods and are therefore independent and distinct.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-9 and 23-27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 7.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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Claims 11, 12, 14, 15, 17, 18, 20, and 21 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The subject matter which was not described in the specification is the step of substantially reducing an artifact produced by aortic pulsations in combination with the other steps. The specification states on page 18 that undesirable features such as aortic pulsations can be identified but the specification does not state exactly how the aortic pulsations artifacts can be substantially reduced. This rejection is related to enablement.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 10, "that are applied to template components" is vague since it is unclear if the method contains this step. Method steps should be in active voice to positively recite the step. In addition, "may include" is vague since it can not be determine if the synthetic ECG includes these elements and the claim does not specifically state those elements are included. Also, "and/or" is vague since the scope of the claim can not be determined.

In claim 12, "it" is vague since the word does not refer to a specific claimed element; "to produce a flattened baseline" is vague since it does not state what it is producing a flattened baseline of.

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In claims 13-15, line 3, “ensuring that legacy R-wave detectors for following” seems to not be worded correctly.

In claims 19-22, line 2, “to training data” is vague since it can not be determined if this is the same training data used in claim 10 or different training data; “which can included” is vague since the claim does not specifically point out if those elements are included or not; in line 6, “can represent” is vague; in the last line, “to a favorable comparison” is vague since the limits of a favorable comparison have not been set forth in the claim (it is suggested to use “said identified desired features”).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10, 16, 19, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Karlsson et al (5819741). Karlsson meets the broad limitations in the claims, such as “synthetic composite ECG”, “easily understood view”, “training data”, etc. In addition, the use of “may include” or “can include” does not specify that the claimed invention requires these elements.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 11, 14, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karlsson.

Karlsson discloses the claimed invention except for the step of reducing aortic pulsation artifacts. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cardiac monitoring system as taught by Karlsson, with the step of reducing aortic pulsation artifacts since it was known in the art that cardiac monitoring systems include a step of reducing aortic pulsation artifacts to provide an ECG signal display that is free of extraneous physiological noise/signals and a display that can be easily read by a physician.

Claims 12, 15, 18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karlsson as applied to claim 11 above. Karlsson provides two different filters of 0.05 -100 Hz or 0.5-40 Hz that will inherently extract respiratory baseline artifacts and produce a flattened baseline.

In the alternative, Karlsson discloses the claimed invention except for the extraction of respiratory baseline artifacts to produce a flattened baseline. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cardiac monitor as taught by Karlsson, with the step of extracting respiratory baseline artifacts to produce a flattened baseline since it was known in the art that cardiac monitors included filters to extract respiratory baseline artifacts to produce ECG signals that have a flattened baseline to allow the physician to easily view the ECG data free of extraneous physiological noise/signals.

Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karlsson in view of Snell et al, 4791936 (or McEachern et al, 4094310), as applied to claims 10, 11, and 12, respectively.

Karlsson discloses the claimed invention except for the step of superimposing upward spikes on the R waves. Snell (or McEachern) teaches that it is known to superimpose upward spikes on R waves to allow digital marker codes or identification signals to be included in the R wave data. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cardiac monitor as taught by Karlsson, with the superimposing of upward spikes on the R waves as taught by Snell (or McEachern), since such a modification would provide a cardiac monitor with the superimposing of upward spikes on the R waves to allow digital marker codes or identification signals to be included in the R wave data.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R Evanisko whose telephone number is 703 308-2612. The examiner can normally be reached on M-F 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on 703 308-5181. The fax phone numbers for the organization where this application or proceeding is assigned are 703 306-4520 for regular communications and 703 306-4520 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-1148.


George R Evanisko
Primary Examiner
Art Unit 3762

11/26/2

GRE
November 26, 2002